WAIS: Is It the Lotus 1-2-3 of the Internet?

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San Francisco—Before you can sell a computer, you need an application. Until you get that magic Lotus 1-2-3 or Aldus Pagemaker, the market won't explode. The same goes for networks.

A new application called WAIS may prove to be the kicker for the Internet. Mind you, the Internet hasn't really needed a kicker. It doubles in size every seven months.

If you look at what people are doing on the Internet, though, you see the same old, same old. Electronic mail, FTP for file transfer, and Telnet virtual terminals are the three fundamental applications. The computing paradigms are basically the same ones invented in the early days of the Arpanet in the 1970s.

Brewster Kahle of Thinking Machines Inc., Cambridge, Mass., led a team of people that has developed a totally different way of using the network, a group of cooperating applications called the Wide Area Information Servers.

WAIS (pronounced like "weighs") is a way of finding and retrieving documents on the Internet. A document can be simple ASCII text, or can incorporate graphic images or be generated dynamically as a result of a database query. The server accepts queries using the Z39.50 protocol and returns names of documents and the content of those documents. A typical server accepts queries in natural English, translating the query into key words with which to search the database.

Clients can talk to lots of different servers on the Internet. A single query may be sent out to many places, and documents from different sources collated, allowing the user to view the network as one big database.

What makes this platform interesting is the kind of servers and client interfaces that have developed. Servers now available have an incredible range of information and are run by a gamut of groups. Interested in religion? You can dispatch queries to servers that have the full text of the Koran, the Book of Mormon, and the Bible.

Need information about water quality in Alaskan river basins? Servers ranging from the Columbia Law Library to a global weather change master directory will find dozens of relevant documents.

Client interfaces to WAIS have been developed for the Macintosh, X Windows, Next and several other graphical platforms. The client software lets a person compose queries, refine them, and then save the queries for periodic re-execution. You can think of this as a personalized newspaper.

WAIS can be run on a local network as a corporate information service. Or, for an easy entry to WAIS, a few workstations or PCs can access the servers already available on the Internet. Most effective is to do both, running a local server for corporate information and hooking up to the Internet to open up a broad universe of info for employees.

Why would Thinking Machines develop WAIS? One can think of Thinking Machines' massively parallel processors as the ultimate WAIS servers. Different processors can all look for different things, letting complex searches of large databases be run quickly. ■